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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,639	02/03/2004	Tommy R. Shedd	CEHR 03-13-02	8781

27370 7590 06/24/2005

OFFICE OF THE STAFF JUDGE ADVOCATE
U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND
ATTN: MCMR-JA (MS. ELIZABETH ARWINE)
504 SCOTT STREET
FORT DETRICK, MD 21702-5012

EXAMINER

LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,639

Applicant(s)

SHEDD ET AL.

Examiner

Daniel S. Larkin

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2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8 is/are allowed.
- 6) ☒ Claim(s) 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 2-5, 9-16 and 28-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7 March 2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 07 March 2005 has been entered into the application; however, the crossed-out references have not been considered since the examiner in the Office Action mailed 25 January 2001 has previously considered these references.

Drawings

2. The drawings were received on 25 May 2005. These drawings are acceptable.

Claim Objections

3. Claims 2-5, 9-16, and 26-31 are objected to because of the following informalities:

Re claim 9, claim lines 1-12: The text of these lines should be underlined since all this subject matter is new to claim 9.

Re claim 9, claim line 12: The conjunction -- and -- should be inserted after the term "chamber".

Re claims 11, 12, and 16, claim line 1: A -- comma -- should be inserted after the claim dependency "9" in order to maintain consistency with the punctuation used in the preceding and succeeding claims.

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Re claims 27-31, claim line 1: A -- comma -- should be inserted after the claim dependency in order to maintain consistency with the punctuation used in other claims of the application. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,058,763 (Shedd et al.) in view of US 5,804,705 (Florion et al.) and In re Lindberg 194 F.2d 732, 93 USPQ 23 (CCPA 1952).

With respect to the limitations of claim 26, the reference to Shedd et al. ('763) discloses a first housing (20) including a water inlet (64); an exposure chamber (66) disposed within the first housing for housing an aquatic organism (22), the exposure chamber having an inlet (64) and an outlet (76); an electrode (24 25) disposed within the exposure chamber (66) for sensing and quantifying ventilatory behavior and body movement of the aquatic organism (22) into data and outputting the data as a behavioral signal, col. 4, lines 13-14 and 32-39; and an amplifier (26) for amplifying the behavior signal, col. 11, lines 43-44. The reference to Shedd et al. fails to teach a recirculation unit.

The reference to Florion et al. discloses a method and apparatus for monitoring aqueous media using aquatic animals, whereby the reference discloses the use of exposure chambers (3); a water inlet for directing water into the bottom of the exposure chamber (3); electrodes (2) to monitor the responses of the aquatic animals to their environment; a controller/computer (6) for receiving the behavioral results of the animals; and a recirculating apparatus/stirring tank (11) for recirculating water back to the exposure chambers, col. 5, lines 65-67 through col. 6, lines 1-15. Providing a recirculating apparatus would have been obvious to one of ordinary skill in the art as a means of replenishing the liquid within the exposure chambers while also providing control of the temperature of the water entering the chambers, so that measurements of the behavioral responses of the animals/organisms can be more easily correlated to changes in physical and chemical changes, such as pH and oxygen, or the presence of hydrocarbons or other toxic materials, rather than a change in temperature of the water.

As to the limitation of providing a portable housing, the references to Shedd et al. and Florion et al. fail to expressly recite that their respective structures are portable. However, the courts have ruled that merely making an old device portable or movable without producing any new and unexpected result is not regarded as inventive, see In re Lindberg, 194 F.2d 732, 93 USPQ 23 (CCPA 1952). Providing a portable device would have been obvious to one of ordinary skill in the art as a means of taking the test subjects, i.e. fish, to the test sites without having to transport the samples, which could lead to contamination issues.

With respect to the limitations of claim 27, the reference to Shedd et al. ('763) discloses that the sample stream used in the exposure chamber (20) is diverted through a water quality sensor (40) having an inlet and an outlet. The reference to Shedd et al. fails to provide a water reservoir or a pump for pumping the water through the water quality sensor and to an exposure chamber. The reference to Florion et al. discloses that the recirculating apparatus comprises a water reservoir (11) and a pump (16) for pumping water from the reservoir (11) to the exposure chambers (3). The reference to Florion et al. additionally discloses that a device may be provided for automatically sampling specimens of liquids for analyses; and providing a unit for monitoring various physico-chemical parameters, such as pH, oxygen, turbidity, conductivity, ammonia, etc...) via specific physico-chemical sensors. Providing a water reservoir and a pump would have been obvious to one of ordinary skill in the art as a means of always having a ready supply of fluid and means to move the fluid whenever or wherever needed.

Allowable Subject Matter

6. The following is an examiner's statement of reasons for allowance:

Prior art was not relied upon to reject claims 6-8 because the prior art fails to teach and/or make obvious a system for monitoring and evaluating water quality using ventilatory behavior and body movement of an aquatic organism, whereby an exposure chamber, an electrode, a water reservoir, and a pump are disposed within a first housing in combination with all of the remaining limitations of the claim.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art was not relied upon to reject claims 2-5, 9-16, and 28-31 because the prior art fails to teach and/or make obvious the following:

Claims 2-5 and 9-16: Providing a system for monitoring and evaluating water quality using ventilatory behavior and body movement of an aquatic organism, comprising: a heater/chiller unit for controlling a temperature of water being tested by the system in combination with all of the remaining limitations of the claim.

Claims 28-31: Providing an apparatus for generating behavioral signals of aquatic organism indicative of water quality, comprising a water quality sensor pivotally mounted to a first portable housing in combination with all of the limitations of the base claim.

8. Claims 2-5 and 9-16 are objected to, but would be allowable if corrected in accordance with the suggestions made above in paragraph 3.

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9. Claims 28-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicants' arguments with respect to claims 26 and 27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin
AU 2856
16 June 2005


DANIEL S. LARKIN
PRIMARY EXAMINER